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EXAMINER

MARCANTONI, PAUL D

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,009

Applicant(s)

DATTA ET AL.

Examiner

Paul Marcantoni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/2/05 RCE and response.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-15 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3 and 5-15 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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Applicant's RCE and arguments filed 11/2//05 have been fully considered but they are not persuasive.

Obviousness Type Double Patenting:

Claims 1-3 and 5-15 remain rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-45 of U.S. Patent No. 6,572,697 B2 (Gleeson et al.), Datta et al. (2004/0081827 A1 which is 10/648,184) and Datta et al. (2004/0080063 A1 which is 10/648,585). Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach a composition that can be used for a building material containing hollow inorganic microspheres.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The applicants have said that they will hold in abeyance the sending of a terminal disclaimer. They are further alerted that Datta et al. patent application publications have also been added to the terminal disclaimer. The rejection thus stands until submission of a proper terminal disclaimer.

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35 USC 102/103

Claims 1-3 and 5-15 are rejected under 35 U.S.C. 102(a and b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Garnier et al. '137 al., Kawachi et al. '684, Yamada et al. (2001/0043996 A1), or Pawlowski et al. (see abstract).

Note 1: All references removed were either removed because they teach Scotchlite glass microspheres or glass bubbles or else teach an amount of CaO that falls below that "now" claimed by applicants for their invention. However, it is the examiner's position that applicants' new claimed range of amount of CaO is new matter as stated above. From page 7 of applicants' specification, had applicants' used the broad range or they amend back, the withdrawn references teaching a lower amount of CaO but still reading upon up to 30 wt% divalent metal oxides such as MgO, CaO, SrO, and BaO and scotchlite may be re-applied.

Garnier et al. '137 teach a glass composition that can be used for a microsphere or glass bubble (a traditional use of glass) comprising amounts of components overlapping applicants' claimed synthetic microsphere composition (see col.7, lines 5-14).

Kawachi et al. teach a glass bubble for a filler in a circuit board and the matrix material meets the limitations of the binder and the composition is the same or overlapping as that claimed by applicants on page 7 of their specification.

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Yamada et al. (2001/0043996 A1) teach hollow aluminosilicate glass spheres that can be used as a binder for materials such as cement.

Pawlowski et al. teach a hollow microsphere derived from coal ash with a composition that is in applicants' claimed range for synthetic microsphere (see abstract and page 7 of applicant's specification).

Request for a Scotchlite 3M Data Sheet:

As applicants are experts in the art and they argue that the amounts of components such as alumina are under their claimed range, they are respectfully requested to provide the source of their statements in their arguments and provide a data sheet providing a compositional breakdown of the components that make up the scotchlite glass microspheres so it is clear that they teach away from their claimed invention. The examiner tried to search the internet for a "compositional" breakdown of the glass but could not find it so if applicants can secure a data sheet of this it would be very helpful and resolve any questions about potential overlapping ranges over Scotchlite and save the aggravation of potential future litigation with 3M as well.

New Matter:

Claims 1-3 and 5-15 are rejected under the first paragraph of 35 USC 112 and 35 USC 132 as the specification as originally filed does not provide support for the invention as is now claimed. There is no support for "5.2 to 30 wt% CaO. This is essentially the same new matter rejection used in the previous office

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action made final and mailed 4/27/05 with reference to claim 16 which referred back to claim 1. Again, there is no literal support for using a range of 5.2 wt% CaO unless applicants claim the specific synthetic microsphere "B" which requires 65.8% silica, 12.8% alumina, 3.3% iron oxide, 2.0% MgO, 6.8% sodium oxide, 1.0% potassium oxide, 0.3% sulfur trioxide, and 2.8% others (not clear what they mean by others-do applicants mean all other oxides—this seems vague). See Table 13 on page 33 for Synthetic microsphere B. It is improper for applicants to use 5.2% as a lower limit unless they also use the same components as microsphere B. They did not do this but only linked the lower limit of 5.2 wt% CaO with the broadly disclosed characteristics of a preferred synthetic microsphere on page 7 of their specification. There it states broadly that the amount of CaO can be up to about 30 wt%. Also, notice that (iii) states that "up to 30 wt% divalent metal oxides such as MgO, CaO, SrO, and BaO.... It does not say at least one of MgO, CaO, SrO, and BaO so it would appear that all the oxides must be part of the composition. It is the examiner's position that there is no literal support for "at least one of these divalent metal oxides. It appears from page 7 [0025] of their specification that it is inclusive of all the divalent metal oxides and these need to be in the claim.

The terms "less than about 10 wt% based on the weight of the microspheres" would appear to be new matter because there is only support for --an alkali metal oxide content of 10 wt% or less--- as set forth on the third to last line on page 10 of applicants' specification. This may not necessarily be the same as --an alkali metal oxide content of less than 10 wt% based on the weight

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of the microspheres--. At the very least, it would not appear consistent with what is written in the specification (ie what is now being claimed).

Claim 1 is also new matter because applicants do not provide the amount of silica or silicon dioxide of about 30 to 85 wt% which is required by their specification (see (iii) in [0025] which teaches a broad range of amounts of components for applicants' synthetic microsphere). Note also that a microsphere or cenosphere (ie fly ash cenosphere) made from coal combustion is not natural because it is made by man! If it was out of a volcano, it would be natural but that is not the case so fly ash cenospheres are synthetic microspheres and could not occur without the help of man making it by combusting coal.

Claim 1 is not complete and would appear to be new matter because it does not contain any amount of titania and iron oxide as is required in [0025] on page 7 of applicants' specification in amounts up to 20 wt%.

35 USC 112 Second Paragraph:

Claims 1-3 and 5-15 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

The terms "an alkali content of less than about 10 wt% based on the weight of the microspheres" is indefinite in claim 1 with respect to the limitation also in claim 1 of "about 4 to 10 wt% sodium oxide". It seems that these two limitations potentially contradict each other since 10 is included in the range for sodium oxide. See claim 1.

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It is also not clear in claim 1 that applicants do not claim silica because even in (iii) of [0025] requires silica in amounts of about 30 to 85 wt% and [0026] of applicants' specification requires it to be an aluminosilicate material. The synthetic microsphere cannot be an aluminosilicate if there is no silica in the claimed composition of claim 1.

Applicants also do not particularly point out and distinctly claim that their claimed composition of claim 1 must contain other oxides including titania and iron oxide in amounts up to 20 wt%.

Response:

The examiner has withdrawn all prior art to Scotchlite but requests applicants present a data sheet showing compositional breakdown of Scotchlite microsphere glass. It must be clear that this 3M glass does not overlap. The examiner may re-apply this art as well because the broad disclosure of applicants' synthetic microspheres still reads upon the withdrawn prior art.

The applicants argue Garnier do not use aluminosilicate as a raw material. In rebuttal, applicants do not claim an aluminosilicate either because there is no silicate or silica in their claimed synthetic microspheres of claim 1. Garnier teaches an overlapping glass composition as set forth in column 7, lines 5-15.

The applicants argue Kawachi teaches an amount of alkali metal oxide (sodium oxide + potassium oxide + lithium oxide) between 0 to 1.9%. The examiner acknowledges this but refers applicants to Table 1, Examples 12 and 13 (cols 5-6) that overlap the ranges of amount of components for their claimed invention.

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The applicants argue that Yamada teach a smaller size microsphere and it is the applicants' position "it would be very difficult to form microspheres with particle diameters with particle diameters that fall under applicants' claimed range using Yamada's process. This is not convincing. The applicants do not definitely state in a declaration or other form that Yamada "can not" form their size microspheres; Applicants merely state it would be difficult. Simply because it would be difficult does not mean that it cannot be done and it is the examiner's position that it applicants implicitly suggest Yamada could still obtain their claimed synthetic microsphere size. This is not convincing without a definitive statement on record (better yet in a declaration) saying clearly that Yamada cannot make their size microsphere. Applicants do not state this and thus this argument is not convincing.

The applicants argue that Pawlowski teaches a CaO content of 4.5 wt% and does not fall into their claimed range of "about" 5.2 to 30 wt% CaO. In rebuttal, the term "about" permits some tolerance and it is the examiner's position that the amount of 4.5 wt% CaO is less than 1 wt% difference. 4.5 wt% CaO is *about* 5.2 wt% CaO. "About" permits some tolerance. At least about 10% was held to be anticipated by a teaching of a content not to exceed about 8%. In re Ayers, 154 F 2d 182, 69 USPQ 109 (CCPA 1946). A pressure limitation of 2-15 PSI was held to be readable on a reference which taught a pressure "of the order of about 15 PSI." In re Erickson, 343 F 2d 778, 145 USPQ 207 (CCPA 1965).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Paul Marcantoni', with a stylized flourish at the end.

Paul Marcantoni
Primary Examiner
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